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STATE OF WASHINGTON

DEPARTMENT OF ECOLOGY

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January 27, 1993

Mr. John Anttonen
Acting Program Manager
Office of Tank Waste Remediation Systems
U.S. Department of Energy
P.O. Box 550
Richland, WA 99352

Dear Mr. Anttonen:

This letter is based on our meeting of January 22, and comments provided to me by Don Provost following his initial discussions with "rebaselining" staff on January 25. I would appreciate a written response to those items noted.

1. During our discussion on January 22, you advised me that within the next few days you plan to forward me a copy of Leo Duffy's January 15 memorandum to Richland management along with a notification of actions USDOE will take in order to meet Tri-Party Agreement milestone M-03-05, initiate construction of the vitrification building foundation (completed with the award of the contract for construction package C-210A: vitrification building foundation).

   Be advised that on receipt, our review will focus on the extent to which your letter, and all related modifications to the United Engineers and Constructors - Catalytic contract, provide definitive approval and direction consistent with specific milestone requirements.

2. Yesterday your staff extended an invitation for Ecology to attend the January 29 meeting at which the staff recommendation on the New Technical Strategy will be presented to Richland managers. My understanding is that this presentation is to be held from 3-5 p.m. in the Federal Building, Richland. Please note that I will be in the Tri-Cities on other business Friday. I would be happy to attend. I would appreciate your confirming time and place.

3. My understanding is that the next full meeting of the Leadership Council is scheduled for February 4 and 5. Because we were informed of this meeting late, scheduling is likely to be difficult. Consequently, I would appreciate your advising me of the location and an agenda for each day.

4. I believe I noted to you last week that Jeff Breckel and I will be briefing congressional delegation staff in February on Tri-Party Agreement progress and issues. One of the elements of our discussion

will be to provide a concise description of significant progress. In preparation for this element of our briefing, I would appreciate your providing me a listing of significant accomplishments from USDOE's viewpoint no later than February 8.

For your information, I am enclosing a copy of the listing Ecology utilized during a similar briefing this past May. You'll note that it goes well beyond tank waste remediation system work. Please coordinate with Jim Bauer and other USDOE staff as necessary.

5. I have recently begun to receive information that indicates that USDOE believes it may violate TPA milestone M-11-00 (hot cell laboratory expansion(s)) due to a funding shortfall. Please update me on USDOE's compliance status, actions being taken to meet this milestone, and any difficulties being encountered.

6. Finally, please note that I am in receipt of 2 pieces of correspondence related to the management of spent commercial reactor fuels: 1) Senator J. Bennett Johnston to Secretary of Energy Watkins, December 10, 1992, and 2) Secretary of Energy Watkins to Senator J. Bennett Johnston, December 17, 1992 (enclosed).

   In the latter of these documents Secretary Watkins describes USDOE planning now in progress under which it would propose that USDOE pursue the selection of an unspecified number of federal facilities to act as host of regional monitored retrievable storage facilities prior to completion of a deep geologic repository.

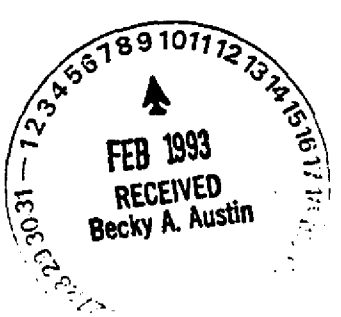
   Please advise me of any knowledge, work, or requests of Richland staff in this matter.

Thank you for your prompt attention to these matters.

Sincerely,

Roger Stanley
Program Manager
Nuclear and Mixed Waste Management

RS:lm
Enclosures (2)



cc: John Tseng, USDOE-HQ
Jay Manning, Attorney General's Office
Terry Husseman, Ecology (Acting Director)
Jeff Breckel, Ecology
Jerry Gilliland, Ecology (Acting Assistant Director)
Administrative Record

United States Senate

COMMITTEE ON
ENERGY AND NATURAL RESOURCES
[redacted]

December 10, 1992

The Honorable James D. Watkins
Secretary
Department of Energy
Washington, D.C. 20858

Dear Secretary Watkins:

As you know, I am extremely interested in the continued progress and future plans for the civilian radioactive waste management program. I know you share my commitment for cost-effective progress and timely success in this program. It is imperative that the program meet its goals so that nuclear power can continue to contribute significantly to meeting our energy needs.

Please inform me of the status of your program for ensuring that receipt of spent fuel from utilities can begin in 1998. I would also like to be informed of your plans to ensure continued progress in the characterization of the Yucca Mountain site and initiation of waste disposal activities in a timely manner. Please also include any recommendations you have for action by the Congress to help meet the goals of the civilian waste program.

Sincerely,

J. Bennett Johnston
Chairman

The Secretary of Energy
Washington, DC 20585

December 17, 1992

The Honorable J. Bennett Johnston
Chairman
Committee on Energy and Natural Resources
United States Senate
Washington, D.C. 20510-6150

Dear Mr. Chairman:

Thank you for your letter of December 10, 1992, requesting information on the Department's plans to assure that receipt of spent nuclear fuel (SNF) from reactors can begin in 1998. You also requested information on progress toward disposal, which I will address in a separate letter.

Enclosed for your information is a summary of my new strategy to provide SNF interim storage in 1998. It will broaden and complement existing siting efforts and use a more effective SNF management system. We will complete planning and begin implementation of the described actions by December 31, 1992. In implementing the strategy we will establish productive working relationships with affected and interested constituencies.

I believe this new strategy for the Government and the Congress will produce the results needed to begin SNF receipt in 1998 and will maintain the nation's options for continued use of nuclear power as established in the Energy Policy Act of 1992. I urge your continued leadership for congressional action to achieve our mutual goals.

Sincerely,

James D. Watkins
Admiral, U.S. Navy (Retired)

Enclosure

cc:
The Honorable Malcolm Wallop
Ranking Minority Member

A NEW STRATEGY FOR MANAGEMENT OF COMMERCIAL SPENT NUCLEAR FUEL

Background

The National Energy Strategy and the Energy Policy Act of 1992 envision continued use of nuclear power, along with other supply sources, to meet the country's needs for more electricity to support a growing economy and to replace aging existing capacity, and to remain within existing and emerging environmental laws such as the Clean Air Act. Progress on, and a timely solution to, the management and disposal of spent commercial nuclear fuel is essential to avoid premature and unwarranted shutdowns of operating nuclear plants, to permit renewals of existing plant licenses to provide life extensions from 40 to 60 years, and to enable new orders of advanced-design nuclear plants.

The Department of Energy has been working to a plan that would enable start of spent fuel removal from nuclear plant sites and receipt at a Monitored Retrievable Storage (MRS) facility by January 1998, and start of spent fuel disposal at a repository by 2010. In May 1992, in a letter to Northern States Power, the Department stated that it would assess progress in implementing that plan and report the results of its assessment to the Congress in January 1993. The Department further stated that should it become clear that its planned actions and progress towards interim milestones would not ensure that it could accept spent nuclear fuel by 1998, it would take whatever actions were necessary and in accordance with the law to meet its obligations under the Nuclear Waste Policy Act (NWPA). Further, it would seek additional legislative authority if appropriate.

The results of that assessment and the new actions planned are described below.

MRS Facility and Siting

The Office of the Nuclear Waste Negotiator, established under the NWPA as amended in 1987, has spent more than two years seeking a voluntary host and site for an MRS facility. That office has not been able to identify a viable candidate site that can be recommended to Congress by June 1993 and that will permit spent fuel receipt by January 1998 as planned. Thus, alternative actions are required.

The Department has examined potential alternative actions and has concluded the following:

(1) It now appears that a multiple purpose and standardized container system for spent fuel receipt, storage, transport, and disposal can be developed to reduce costs, minimize required handling of spent fuel assemblies, and provide more efficient storage at both an interim storage site and nuclear plant sites. Such a system would simplify the design of a storage facility, but would require expeditious development and certification to be effective.

(2) to meet the needs and expectations of the nuclear industry, the Department should plan for use of Federal Government sites for interim storage.

Accordingly, storage capacity for spent nuclear fuel at any federal Government site or sites should be made available for use by January 1998. The Department has prepared a generic schedule showing the actions necessary to utilize a Government site or sites by that time.

The Department should be authorized and required by the Congress to select candidate Federal sites by December 31, 1993. A detailed, specific schedule for site selection and readiness to receive spent fuel by January 1998 should also be required to be submitted to the Congress by December 31, 1993.

Standardized Container System

The Department will immediately refocus spent fuel container design activities on development of a standardized system with capability for receipt, dry storage, transport, and disposal of spent fuel. Such a standardized system has been endorsed by a recent resolution of the Edison Electric Institute UNASTE Committee.

As of December 18, 1992, an expedited schedule for developing, manufacturing, testing and certifying such a container system and its elements was completed by the Department. The certification schedule was reviewed informally with the Nuclear Regulatory Commission on December 17, 1992.

Current work on MRS facility siting will be terminated and design work will be redirected toward the modular canister concept. By December 31, 1992, the simplification of the MRS facility that may be possible through use of a standardized system will be defined.

Budget Adjustments

The Department is recommending to the Office of Management and Budget that the Nuclear Waste Fund be taken off-budget, in a revolving fund, for FY 1994 and makes a similar recommendation to the Congress. The off-budget concept would permit the Department to apply whatever resources are necessary to meet program needs and schedules, subject to Congressional appropriation.

Potential Compensation for Delay Costs

Some electric utility companies and state regulatory commissions have expressed a concern for compensation by the Federal government for on-site spent fuel storage costs due to potential delays in Department start of receipt of spent fuel in January 1998.

As a contingency action, the Department will promptly explore possible concepts of compensation and resolution of utility equity issues based upon payment or credit from the Nuclear Waste Fund and on no increase in the millage fee. If such an approach is found to be justified and practicable, the Department will notify the Congress of whatever new legislation may be required in order to provide such compensation.

EARLY TRI-PARTY AGREEMENT PROGRESS AT THE HANFORD SITE

May 1992

- 117 Resource Conservation and Recovery Act (RCRA) Ground Water Monitoring Wells have been installed. These RCRA groundwater monitoring installation activities have nearly completed initial monitoring systems. Future additions will depend on data acquired.

- Conceptual and definitive design for initial Laboratory Hot Cell Expansion projects have been completed, and construction is underway. The expansion of Hot Cell capacity is necessary for the analysis of high level radioactive waste samples.

- Interim status corrective actions were completed in September 1991 for 12 facilities at the Hanford Site. These actions brought these facilities near compliance with RCRA interim status requirements for hazardous and mixed waste facilities.

- The construction of Grout Vaults 102, 103, and 104 is approximately 90 percent complete, while the design of Grout Vaults 106 through 109 have been completed. These vaults will be used to safely dispose of low level radioactive and hazardous waste currently in double and single shell storage tanks.

- Design of approximately one third of the total Hanford Waste Vitrification Plant (HWVP) construction packages was completed. Site preparation for HWVP was initiated on April 29, 1992. This plant, and it's ability to transform high-level waste into glass, will be the cornerstone of the disposal of stored high level waste at the Hanford Site.

- A draft RCRA and State Dangerous Waste Permit for the Hanford Site was completed. Ecology conducted five public meetings/hearings to present information on the Hanford Permit and to obtain public comment. When approved, this permit will contain site wide operating conditions as well as specific requirements for the HWVP and other Hanford hazardous waste management units. This permit is currently under revision based upon comments received.

- Through a large integrated study effort a decision was made to not use the B Plant for pretreatment of double shell tank waste.

- Design is progressing and construction has been initiated on a $22 million facility to perform analysis of low level process control samples and to provide quality assurance for off-site commercial laboratories. If off-site laboratory capability is insufficient to meet Hanford Federal Facility Agreement and Consent Order (Tri-Party Agreement or TPA) requirements, this smaller facility will be expanded to provide additional capability for analysis of low level waste samples.

- The design contract for Waste Receiving and Processing Facility I (WRAP I), an $ 89.1 million project, has been let. This facility which will sort and repackage solid wastes is proceeding toward a March 1997 startup.

- Numerous improvements in the management of liquid effluent discharges at the Hanford Site have been completed in order to mitigate the migration of contaminants within area soils. These actions include:

  Three wastewater stream discharges have been stopped.

  - S Plant Wastewater discharge. All flows to the 216-S-10 Crib have ceased.
  - B Plant Chemical Sewer flow to the 216-B-63 Ditch has been discontinued.
  - Surface Contamination Control Water discharges to the 216-U-14 Ditch have been discontinued.

  Flows at seven wastewater streams have been greatly reduced.

  - Flow to the 300 Area Process Trench has been limited to less than 400 gallons per minute (gpm) (December 20, 1991). This represents a reduction of more than 70% from flows recorded in 1991.
  - Flow to the 216-U-14 Ditch has been limited to less than 800 gpm.
  - Flow of N Reactor effluent to the Liquid Waste Detention Facility has been limited to less than 2 gpm.
  - Flow of Plutonium Finishing Plant Wastewater to the 216-Z-20 Crib has been limited to less than 160 gpm.
  - Flow of U03/U Plant Process Wastewater has been limited to less than 450 gpm.
  - Flow of 242-S Evaporator Steam Condensate to the 216-U-14 ditch has been limited to less than 60 gpm.

- Flow of U03 Plant Process Condensate to the 216-U-17 Crib has been limited to less than 10 gpm.

Significant progress was also made on five additional projects.

- Completed installation of U03 Plant Fibermist Eliminator.
- Completed construction of the 2724-W Laundry Effluent Wastewater Treatment Facility, Project B-697.
- Eliminated effluent contributions to 2101-M laboratory wastewater from 2 HVAC coolers serving the 2101-M laboratory.
- Accelerated the 300 Area Effluent Treatment System (Project L-045H). This project was accelerated over 6 months from the previous schedule in the Tri-Party Agreement.
- Awarded the contract for design and construction of the 242-A Evaporator/PUREX Plant Condensate Treatment Facility (Project C-018H).

- Removal of Hexone drums from 618-9 burial ground has been completed. This represents the first significant waste site to be cleaned up under the Tri-Party Agreement and removes a potential source of contamination of groundwater at the Hanford Site. This action also represents an attempt at preventing further contamination and associated future costs.

- Removal of the most highly contaminated soils from the 300 Area Process Trenches has been completed. This action, combined with the reduction of flows to the trenches, removed a significant source of contamination from a site near the Columbia River.

- Began the removal of Carbon Tetrachloride from soils in 200 West Area. This represents a significant early effort to remove contaminants from the soil at the Hanford Site using innovative technology.

- Interim stabilization and isolation of seven single-shell tanks has been completed. This important activity has removed liquids, that could be pumped, from these single-shell tanks thus reducing the driving factor for contaminants to area soils. 44 of 149 tanks remain to be stabilized.

- 32 core samples from single-shell tanks have been obtained. The collection of these samples for analysis is an important step in providing the technical basis for disposal decisions and subsequent disposal actions.

- Possible methods of retrieval of single-shell tank waste have been identified and conceptually demonstrated (robotic arm). These demonstrations will continue in order to develop equipment and methods for retrieval of single-shell tank waste.

- USDOE completed and reviewed the draft single-shell tank systems engineering study with the National Research Council (principle operating agency of the National Academy of Sciences and the National Academy of Engineering) as a precursor to developing a Supplemental Environmental Impact statement.

- Remedial investigations are now underway in 9 operable units at the Hanford Site. Remedial Investigation Phase I field activities at the 200-BP-1 operable unit are 95 percent complete with the same activities at the 300-FF-1 and 300-FF-5 operable units complete. This activity will provide information about these waste sites needed to form a basis for decisions regarding how to cleanup these sites.

- Approximately 60 100 Area operable unit vadose zone bore holes and groundwater monitoring wells have been installed for a total of 300 feet drilled. Over 350 valuable samples have been obtained for analysis. This activity will provide information to form a basis for decisions on cleaning up these sites.

For more information on this issue and other aspects of Hanford Site cleanup, contact the Washington State Department of Ecology, Nuclear and Mixed Waste Management Program: Jeff Breckel (206) 438-7613 or Roger Stanley (206) 438-7020.